

CHATTANOOGA-HAMILTON COUNTY
AIR POLLUTION CONTROL BOARD
2018 COE Petition

Attachment – TDEC Quality Assurance Performance Audits

State Audit Findings 2016, 2017 and Corrective Actions

2016	Findings	Corrective Actions
Quarter 1 <i>March 14-15</i>	Clock time at 20781 at Siskin Drive (470654002) was off 1 min 45 sec (acceptable range is ± 1 min). The lid gasket on 2025 SN 20781 was loose and not forming a seal. Clock time was 1 min 8 sec off at ER 470650031 SN 20772. Lid gasket on 20772 was loose and not forming a seal.	Times were reset and gaskets were replaced.
Quarter 2 <i>June 20-21</i>	Compartment Temp on SN20781 at Siskin Drive (470654002) was 1.7 ° out of limits	Compartment sensor was replaced
Quarter 3 <i>Sept 19-20</i>	Compartment temperature on SN20772 for East Ridge (470650031) was 7. 3° out of limits. Audit on September 19 on 20775 at Siskin Drive (470654002) failed external and internal leak checks.	Sensor was replaced for SN20772. Source of leak was found to be tube from pump. Maintenance was performed on SN20775, the auditor returned, and the monitor passed all leak checks on September 20 th .
Quarter 4 <i>Oct 5-6 Nov 30-Dec 1</i>	Compartment Temp. on Siskin Drive (20781) was on the border of acceptable range.	Operator more closely monitored compartment temp.
2017		
Quarter 1 <i>March 22-23</i>	At the ER site (470650031) (SN 20772) and Siskin Drive (470654002) (SN20781-POC 1) the compartment temps. were over 2° different (.7° and .8° low)	Sensors were recalibrated.
Quarter 2 <i>June 12-14</i>	No findings.	
Quarter 3 <i>Sept 5-7</i>	No findings.	
Quarter 4	No findings per Bureau understanding (report not yet issued)	

**Tennessee Department of Environment and Conservation
Memorandum**

Date: April 20, 2016
To: Robert Colby
From: Brandi Stimson
Subject: TDEC Quality Assurance Performance Audit
Site: Soddy Daisy: 47-065-1011

On March 16, 2016, personnel from the Quality Assurance section conducted performance audits on selected ambient air monitors. The following is a summary of the parameters and values measured.

Site & Instrument Soddy Daisy: 47-065-1011	Measured Parameter	Audit Value	Monitor Response	Difference	Acceptable Range
Thermo 49i Serial# 1435663748	O ₃	0.133 ppm	0.132 ppm	- 0.7 %	+/- .15 %
		0.073 ppm	0.074 ppm	1.3 %	+/- .15 %
		0.050 ppm	0.049 ppm	- 2.0 %	+/- .15 %
ESC 8832 Serial# A4010K	Lab Temp.	23.3 0 °C	23.7 0 °C	0.4 °C	+/- 2 °C
	Lab Time	07:43:05 est.	07:43:00 est.	- 00:00:05 min.	+/- 00:01:00 min.

Remarks:

1. All measured parameters were within acceptable limits.

Recommendations:

1. None.

If we can be of any further assistance or should there be questions regarding this audit, please contact Brandi Stimson by email at Brandi.Stimson@tn.gov or by phone at (615) 687-7035.

SD031616

cc: K. Jones, Chattanooga
R. Brawner, APC
J. Stephens, APC
L. Allen, APC
B. Pugh, APC

* Teledyne SN# 302, Streamline Pro SN# C150304, and www.time.gov were used by Quality Assurance personnel to conduct this audit.

**Tennessee Department of Environment and Conservation
Memorandum**

Date: April 20, 2016
To: Robert Colby
From: Brandi Stimson
Subject: TDEC Quality Assurance Performance Audit
Site: Riverside/Siskin: 47-065-4002

On March 15, 2016, personnel from the Quality Assurance section conducted performance audits on selected ambient air monitors. The following is a summary of the parameters and values measured.

Site & Instrument Riverside/Siskin: 47-065-4002	Measured Parameter	Audit Value	Monitor Response	Difference	Acceptable Range
R & P TEOM Serial# 24453	Sample Flow	3.06 lpm	3.01 lpm	- 1.6 %	+/- 4 %
	Bypass Flow	13.70 lpm	13.66 lpm	- 0.3 %	+/- 4 %
	Total Flow	16.69 lpm	16.67 lpm	- 0.1 %	+/- 4 %
	Barometric Press.	740 mm	740 mm	0 mm	+/- 10 mm
	Ambient Temp.	16.3 °C	17.9 °C	1.6 °C	+/- 2 °C
	Clock Time	09:32:00 cst.	09:32:02 cst.	+ 00:00:02 min.	+/- 00:05:00 min.
R & P 2025 Serial# 20781 (POC #1)	Sample Flow	16.70 lpm	16.75 lpm	0.3 %	+/- 4%
	Barometric Press.	739 mm	739 mm	0 mm	+/- 10 mm
	Ambient Temp.	15.9 °C	16.0 °C	0.1 °C	+/- 2 °C
	Compartment Temp.	20.1 °C	21.9 °C	1.8 °C	+/- 2 °C
	Filter Temp.	17.4 °C	16.1 °C	-1.3 °C	+/- 2 °C
	Clock Time	08:57:00 cst.	08:58:45 cst.	+ 00:01:45 min.	+/- 00:01:00 min.
R & P 2025 Serial# 20775 (POC #2)	Sample Flow	16.68 lpm	16.64 lpm	- 0.2 %	+/- 4 %
	Barometric Press.	739 mm	740 mm	1 mm	+/- 10 mm
	Ambient Temp.	15.4 °C	15.9 °C	0.5 °C	+/- 2 °C
	Compartment Temp.	16.7 °C	17.1 °C	0.4 °C	+/- 2 °C
	Filter Temp.	15.0 °C	13.9 °C	- 1.1 °C	+/- 2 °C
	Clock Time	08:34:00 cst.	08:34:00 cst.	00:00:00 min.	+/- 00:01:00 min.

Remarks:

1. The clock time on 2025 Serial# 20781 was + 00:01:45 minutes from standard time.
2. All other measured parameters were within acceptable limits.
3. The lid gasket on 2025 Serial# 20781 was loose and not forming a seal.

Recommendations:

1. It is recommended that the time be adjusted on 2025 Serial# 20781.
2. It is recommended that the lid gasket be repaired or replaced on 2025 Serial# 20781 in order to allow the lid to seal correctly.

If we can be of any further assistance or should there be questions regarding this audit, please contact Brandi Stimson by email at Brandi.Stimson@tn.gov or by phone at (615) 687-7035.

RS031516

cc: K. Jones, Chattanooga
R. Brawner, APC
J. Stephens, APC
B. Pugh, APC

* Streamline Pro SN# C150304 and www.time.gov were used by Quality Assurance personnel to conduct this audit.